

ABSTRACT

VARIANTS OF HUMAN TASTE RECEPTOR GENES

Identified herein are different forms of bitter receptor genes that occur in different humans. These alleles are generated by numerous coding single nucleotide polymorphisms (cSNP's) that occur within the members of the T2R gene family. Some SNP's cause amino acid substitutions, while others introduce chain termination codons, rendering the allele non-functional. Differences in these genes are believed to have a large effect on those individuals' sense of bitter taste, such that these individuals perceive the taste of bitter substances differently than the rest of the population. The ability to assay this allelic information is useful in the development of flavorings and flavor enhancers, as it can be used to define large groups and populations who perceive bitter tastes differently. This in turn allows the taste preferences of these groups to be addressed at the molecular level for the first time.